

New Jersey Department of Health (DOH)
TCE Fact Sheet
Walter O. Krumbiegel Middle School
Hillside, Union County, New Jersey

What is TCE ?

TCE, also known as Trichloroethylene is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste.

Where does TCE come from?

TCE is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers.

How could children and staff at the Walter O. Krumbiegel School have been exposed to TCE?

Children and staff at the Walter O. Krumbiegel School may have been exposed to TCE by breathing vapors from the air which are coming from an unknown source. It is presumed that children and adults who spent time in the Walter O. Krumbiegel School were exposed to TCE.

How much TCE did children and staff at the Walter O. Krumbiegel School get exposed to?

How much each person breathed in depends on how much time they spent at the Walter O. Krumbiegel School. It is unknown how much TCE was in the air before testing was done. .

Typical background levels of TCE in air range from 0.16 micrograms of TCE per cubic meter of air ($\mu\text{g}/\text{m}^3$) in rural areas to 2.5 $\mu\text{g}/\text{m}^3$ in urban and suburban areas. Recent levels of TCE identified in the indoor air at the Walter O. Krumbiegel School ranged from 1 $\mu\text{g}/\text{m}^3$ to 9 $\mu\text{g}/\text{m}^3$.

Will staff and children attending the Walter O. Krumbiegel School get sick from TCE exposure?

The risk evaluation completed by the DOH is site specific for the school, accounts for cumulative risk for both children and staff, and uses the maximum concentration of TCE found in the school. Based on the current indoor air data collected at the school, the DOH would not expect adverse health effects to occur at these levels.



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How can TCE affect my health?

Health effects caused by TCE exposure depend on the amount a person breathes in and the duration of the exposure. Breathing small amounts may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating. Breathing large amounts of TCE may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage. There is also evidence that TCE may cause cancer. Some studies with mice and rats have suggested that high levels of trichloroethylene may cause liver, kidney, or lung cancer.

Is there a medical test to show whether I've been exposed to TCE?

If you have recently been exposed to trichloroethylene, it can be detected in your breath, blood, or urine. The breath test, if it is performed soon after exposure, can tell if you have been exposed to even a small amount of trichloroethylene.

Exposure to larger amounts is assessed by blood and urine tests, which can detect trichloroethylene and many of its breakdown products for up to a week after exposure. However, exposure to other similar chemicals can produce the same breakdown products, so their detection is not absolute proof of exposure to trichloroethylene. This test isn't available at most doctors' offices, but can be done at special laboratories that have the right equipment.

Who should I talk to if I am concerned about my health or my child's health?

You should begin by discussing your concerns with your physician or your child's pediatrician. There are clinics that specialize in environmental health issues that your primary care provider may want to contact.

For adults: The Environmental and Occupational Health Clinical Center in Piscataway, NJ sees adults who have been exposed to contaminants occupationally or environmentally. They can be reached at (848) 445-0123.

For children: Pediatricians can contact the Mt. Sinai Medical Center's Pediatric Environmental Health Specialty Unit at (866) 265-6201.

For general questions: Contact the New Jersey Department of Health, Consumer, Environmental, and Occupational Health Services at 609-826-4920.